

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Inventor:** Peter W. Wenzel et al.

**Examiner:** Daniel Jr., Willie J.

**Serial No:** 09/981,268

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**Docket No:** 14485RRUS01U

**Title:** HOME AGENT REDUNDANCY IN A CELLULAR SYSTEM

Date: July 6, 2007

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Commissioner for Patents  
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Alexandria, VA 22313-1450

**SUPPLEMENTAL APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

Subsequent to the Final Office Action, a Notice of Appeal with a Pre-Appeal Brief was filed on September 5, 2006, and received September 11, 2006. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed November 2, 2006, with an indication to proceed to the Board of Patent Appeals and Interferences, creating an Appeal Brief Due date of December 2, 2006. MPEP § 1206 at page 1200-7.

A notification of non-compliant appeal brief had been issued having a mailed date of June 29, 2007. This supplemental appeal brief is tendered in response within the time period permitted.

Accompanying the earlier Brief in Support of an Appeal were the necessary fees. If any petition fee for an extension of time or any other additional fee is required, the undersigned attorney directs the office to debit such fee from deposit account number 50-2126.

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**A. Real Party in Interest**

All rights to the above referenced patent application have been assigned to:

Nortel Networks Limited  
2351 Boulevard Alfred-Nobel  
St. Laurent, Quebec, Canada H4S 2A9

**B. Related Appeals and Interferences**

There are no known other appeals or interferences that would directly or indirectly affect the Board's decision in the present appeal.

**C.     Status of the Claims**

Claims 1-23 are pending. Claims 1-23 stand rejected under 35 U.S.C. 103(a) generally under the proffered combination of Ton in view of Perkins (*see* Final Office Action mailed June 5, 2006 [*hereinafter* Final Office Action]) in combination with other references.

**D. Status of Amendments**

Subsequent to the Final Office Action, a Notice of Appeal with a Pre-Appeal Brief was filed on September 5, 2006, and received September 11, 2006. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed November 2, 2006, with an indication to proceed to the Board of Patent Appeals and Interferences, creating an Appeal Brief Due date of December 2, 2006. MPEP § 1206 at page 1200-7. No amendments were filed subsequent to the final rejection.

**E. Summary of claimed subject matter**

The claims of the present application are directed towards subscriber unit registration in a cellular system when an assigned home agent is not operational, resulting in a failure of registration of the subscriber unit with the cellular system. Registration failure precludes the subscriber unit from receiving Internet Protocol communication service from its cellular system provider. (Specification at p. 2).

To overcome these failures, a subscriber unit is programmed with a plurality of IP addresses, each corresponding to a home agent of the service provider. The programmed IP addresses include the IP addresses of a primary home agent and a secondary home agent. Upon an initial registration attempt, the subscriber unit attempts to register with its primary home agent. Should this operation fail, the subscriber unit attempts registration with its assigned secondary home agents. (Specification at p. 3).

In a further aspect, the subscriber unit rank orders a plurality of secondary home agents for which it has been programmed. Such ranking may be based upon the generation of a random number and with the random number used to rank the plurality of secondary home agents. In another aspect, a date or time of day is employed in rank ordering the plurality of secondary home agents. Such rankings serve to distribute the load among the plurality of home agents when registration failure is a result of disparate loading among agents. (Specification at p. 4).

Claims 1-23, of which Claims 1, 10, and 15 are independent claims, are directed towards subscriber units and methods, respectively, for registering the subscriber unit with a cellular system.



In particular, Independent Claim 1 describes a method (*see* Figure 2; Specification at p. 10, *ll.* 20-26 through p. 11:1-25) for registering a subscriber unit (110 through 118 of Figure 1; 602 of Figure 6; *see* Specification at p. 6:18-21) with a home agent (138, 140 of Figure 1; Specification at p. 8:13-9) in a cellular system (*see* Figure 1; Specification at pp. 6:6-26 through 10:1-19). The method comprises storing addresses for a plurality of home agents (616 of Figure 6; Specification at p. 15:26-27) in the subscriber unit (608, 616 of Figure 6), wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents (*Id.*). The subscriber unit attempts registration with the primary home agent (step 204 of Figure 2; Specification at p. 10:23-25), and the subscriber unit fails to achieve registration with the primary home agent (step 206 of Figure 2; Specification at p. 11:3-11). The subscriber unit selects a secondary home agent from the plurality of secondary home agents (step 210 of Figure 2; Figure 3B; Specification at p. 11:3-11) in an attempt to balance load among the plurality of secondary home agents (*see* Specification at pp. 4:13-18, 12:5-11). The subscriber unit attempts registration with the secondary home agent (step 212 of Figure 2; Specification at p. 11:3-11).

Independent Claim 10 describes, *inter alia*, a method (*see* Figure 2; Specification at pp. 10:20-26 through 11:1-25) for registering a subscriber unit with a home agent (138, 140 of Figure 1) in a cellular system (110 through 118 of Figure 1; 602 of Figure 6; Specification at p. 10:21-25). The method comprises storing addresses for a plurality of home agents in the subscriber unit (608, 616 of Figure 6; Specification at p. 15:26-27), wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents (138 and 140, Figure 1; Specification at pp. 8:15-16). The subscriber unit attempts registration with the primary home agent (step 204 of Figure 2; Specification at p. 10), and fails to achieve registration with the primary home agent (step 206 of Figure 2; Specification at p. 11:3-11). The

subscriber unit rank ordering (Specification at p. 11:26-27 through 12:1-4) the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent in an attempt to balance load among the plurality of secondary home agents (step 210 of Figure 2; Figure 3A; Specification at p. 12:8-11). The subscriber unit attempts registration with the first secondary home agent (*see* steps 212, 216, 218 of Figure 2; Specification at p. 12:12-18).

Independent Claim 15 describes a subscriber unit (602 of Figure 6; Specification at pp. 15:4-27, 16:1-11) that operates within a cellular system. The subscriber unit comprises an antenna (605 of Figure 6; Specification at p. 15), a radio frequency unit (604 of Figure 6; Specification at p. 15) coupled to the antenna (605 of Figure 6; Specification at p. 15:10-11); and at least one digital processor (606 of Figure 6; Specification at p. 15:12-15) coupled to the radio frequency unit that executes software instructions. The execution of the software instructions by the at least one digital processor (606 of Figure 6; Specification at p. 15:12-15) causes the subscriber unit (602 of Figure 6; Specification at pp. 15:4-27, 16:1-11) to store addresses (616 of Figure 6; Specification at p. 15:26-27) for a plurality of home agents in the subscriber unit (608, 616 of Figure 6; Specification at p. 15:26-27), wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents (*Id.*). Via the software instructions, the subscriber unit (602 of Figure 6) attempts registration with the primary home agent (step 204 of Figure 2; Specification at p. 10:23-25). Failing to achieve registration with the primary home agent (step 206 of Figure 2; Specification at p. 11:3-11), the software instructions cause the subscriber unit to select a secondary home agent from the plurality of secondary home agents (616 of Figure 6; Specification at pp. 11:3-11) in an attempt to balance load among the plurality of secondary home agents (step 210 of Figure 2; Figure 3A;

Specification at p. 12:5-18), and attempt registration with the secondary home agent (step 212 of Figure 2; Specification at p. 12:24-26).

**F. Grounds of rejection to be reviewed on Appeal**

The rejection of Claims 1, 7-9, 15, and 21-23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application 2002/0067704 to Ton (“Ton”) in view of Perkins, “*IP Mobility Support*” (Perkins I).

The rejection of Claims 2, 3, 10, 11, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, and further in view of U.S. Publication No. 2002/0078238 (“Troxel”).

The rejection of Claims 4 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins, “*IP Mobility Support*, (Perkins I)” and further in view of Troxel, further in view of Jue et al., “*Design & Analysis of Replicated Server Architecture for Supporting IP-Host Mobility*” (“Jue”), even further in view of U.S. Patent No. 6,615,050 to Tiedmann et al. (“Tiedmann”).

The rejection of Claims 5, 6, 13, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I and further in view of Troxel, further in view of Perkins “*Mobile Networking through Mobile IP* (Perkins II)”, and even further in view of U.S. Patent No. 5,590,092 to Fehnel (“Fehnel”).

The rejection of Claims 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, further in view of Troxel, and further in view of Perkins, “*Mobile Networking through Mobile IP* (Perkins II).”

The rejection of Claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, further in view of Troxel, and further in view of Jue.

**G. Argument:**

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2142, p. 2100-125 (Rev. 5, August 2006).

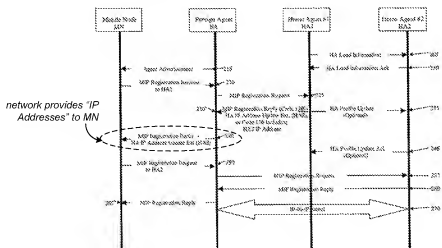
**1. Rejection of Claims 1, 7-9, 15, and 21-23 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application 2002/0067704 to Ton ("Ton") in view of Perkins, "IP Mobility Support" (Perkins I)**

**a. *Prima Facie obviousness not established to base claims, and dependent claims accordingly, because registration is a prerequisite in cited art for receiving secondary home agents - the network of Ton only provides secondary home agents following registration***

To avoid Home Agent failure following mobile node registration, Ton calls for "an additional Mobile IP extension [that] is added to the registration reply message [that allows] the Mobile Node . . . to select a new secondary Home Agent to perform registration with in case the primary Home Agent fails." (Ton ¶ 0028).

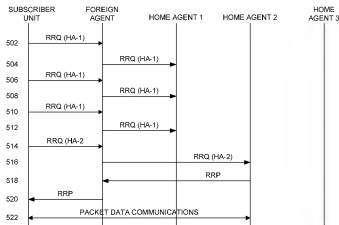
In other words, Ton allows redundancy activity only once the subscriber unit is *registered with the network*, such as through a foreign agent. Ton does not provide for redundancy upon an initial inability for a mobile terminal to register with the network. Further, as shown in

Figures 2-4 of Ton, secondary addresses are supplied by the network, and *not by the mobile terminal*. Referring by example to Figure 2 of Ton:



Under Ton, without the provisioning of an “IP Address Update” by the network, the mobile node would not have the capability, as understood, of accessing the secondary HA addresses.

In contrast, Appellant's Figure 5 reflects the capability to register within that the network provides "IP addresses" to the mobile node:



That is, as explained in Appellant's specification with respect to Figure 5, "a subscriber unit initiates registration with its assigned primary HA and, upon failure in this registration operation, the subscriber unit initiates registration with a secondary HA." (Specification at p. 14, *ll.* 2-6).

***b. Prima Facie obviousness not established because Perkins I does not mobile terminal access redundancy, but instead relates to home agent reliability***

Section 3.6 of Perkins, "*IP Mobility Support* (Perkins I)," recites that "a mobile node MAY be configured with the IP address of one or more of its home agents; otherwise, the mobile node MAY discover a home agent using the procedures described in Section 3.6.1.2." (Perkins, "*IP Mobility Support*, p. 33, § 3.6).

Appellant respectfully submits, however, that these home agents, as understood, are primary home agents in that "[a] home agent MUST always be prepared to serve the mobile nodes for which it is the home agent." (*Id.* at p. 16) (original emphasis). In other words, the Home Agent of Perkins *would not be in an inoperable state to affect mobile node registration*. Accordingly, Perkins does not address instances where the home agent is inoperable and subsequent actions are taken by a mobile node to gain connectivity.

***c. In contrast to the hypothetical combination of Ton with Perkins I, Appellant's Method of Claim 1 and Apparatus of Claim 15 recite, inter alia, storage of addresses for a plurality of home agents in the subscriber unit prior to registration attempts with a cellular network.***

Accordingly, there is no suggestion or motivation provided by the post-registration redundancy of Ton with the home agent reliability of Perkins I to achieve Appellant's claimed invention of "*storing addresses for a plurality of home agents in the subscriber unit*," "*failing to achieve registration*," and subsequently "*attempting registration with a secondary home agent*" as set out in Independent Claims 1 and 15. Further, the hypothetical combination of Ton in view of Perkins I do not teach or suggest all the claim limitations of Appellant's claimed invention.



**2. Rejection of Claims 2, 3, 10, 11, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, and further in view of U.S. Publication No. 2002/0078238 (“Troxel”)**

Appellant respectfully submits that the addition of *Troxel* with the hypothetical combination of *Ton* & *Perkins I* does not cure deficiencies in the lack of *prima facie* obviousness against Independent Claim 10 and dependent Claim 11 that depends therefrom, or to dependent Claims 2 and 3 that depend from Independent Claim 1, or to dependent claims 16 and 17 that depend from Independent Claim 15

As submitted above, there is no suggestion or motivation for the hypothetical combination of *Ton* in view of *Perkins I* to achieve Appellant’s claimed invention as recited in its Claims 1 and 15. Claims 2 and 3 depend from Independent Claim 1. Claims 16 and 17 depend from Independent Claim 15. Because dependent claims are “construed to incorporate by reference all the limitations of the claim to which [they refer],” 35 U.S.C. § 112, ¶ 4, Appellant respectfully submits that there is also no suggestion or motivation for the addition of *Troxel* to the hypothetical combination of *Ton* in view of *Perkins I* that provides a *prima facie* case of obviousness.

Further, for the reasons below, Appellant respectfully submits that there is similarly a lack of suggestion or motivation for the hypothetical combination of *Ton* in view of *Perkins*, and further in view of *Troxel*, to achieve Appellant’s claimed invention recited in Claim 10 and to achieve that of dependent claim 11.

*Troxel* relates generally to “invention [that] can enable nodes on a foreign subnetwork to exchange messages.” (*Troxel* ¶ 0016). *Troxel* was added to *Ton* and *Perkins I* because it allows rankings of foreign agents “based, for example, on services offered by the agents, capacity,

signal strength, and so forth.” (Troxel ¶ 51). Troxel, among other elements, does not address initial registration failure by a mobile terminal.

Appellant’s Independent Claim 10, however, recites a “method for registering a subscriber unit with a home agent in a cellular system, the method comprising: *storing addresses for a plurality of home agents in the subscriber unit*, wherein the plurality of home agents includes a primary home agent and a plurality of secondary home agents; *attempting registration with the primary home agent*; failing to achieve registration with the primary home agent; the *subscriber unit rank ordering the plurality of secondary home agents into at least a first secondary home agent and a second secondary home agent in an attempt to balance load among the plurality of secondary home agents*; and attempting registration with the first secondary home agent.” (emphasis added).

Appellant Accordingly, there is no suggestion or motivation to modify the post-registration redundancy device of Ton in view of the protocol enhancements of Perkins I, “IP Mobility Support,” and further in view of the foreign agent (“FA”) ranking device of Troxel, to achieve Appellant’s invention recited in the method of Independent Claim 10, much less teach or suggest all the claim limitations. Appellant respectfully submits that a prima facie case of obviousness has not been established with respect to Claims 2 and 3, which depend directly or indirectly from Independent Claim 1, Claim 10 and 11 that depends therefrom, and Claims 16 and 17 depend directly or indirectly from Independent Claim 15, by the hypothetical combination of Ton in view of Perkins I, “IP Mobility Support,” in further view of Troxel and requests withdrawal of the rejection.

**3. Rejection of Claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, further in view of Troxel, and further in view of Jue et al., “Design & Analysis of Replicated Server Architecture for Supporting IP-Host Mobility” (“Jue”)**

Claim 18 depends indirectly from Independent Claim 15. As submitted above, there is no suggestion or motivation for the hypothetical combination of Ton in view of Perkins I to achieve Appellant’s claimed invention as recited in its Claim 15. Because dependent claims are “construed to incorporate by reference all the limitations of the claim to which [they refer],” 35 U.S.C. § 112, ¶4, Appellant respectfully submits that there is also no suggestion or motivation for the addition of Jue to the hypothetical combination of Ton in view of Perkins I and Troxel that provides a *prima facie* case of obviousness.

Jue relates to “[m]obility supporting IP networks [that] requires servers *to forward packets* to mobile hosts and to maintain information pertaining to a mobile host’s location in the network.” (Jue, Abstract). That is, post-registration activities.

Appellant respectfully submits that there is no suggest or motivation for the references relying on post-registration activities that would achieve Appellant’s claimed invention of its Claim 18.

**4. Rejection of Claims 4 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I and further in view of Troxel, further in view of Jue, even further in view of U.S. Patent No. 6,615,050 to Tiedmann et al. (“Tiedmann”)**

Claim 4 depends indirectly from Independent Claim 1. Claim 4 depends indirectly from Independent Claim 12. As submitted above, there is no suggestion or motivation for the hypothetical combination of Ton in view of Perkins I to achieve Appellant’s claimed invention as recited in its Claim 1, or for the hypothetical combination of Ton in view Perkins I and Troxel

to achieve Appellant's claimed invention as recited in its Claim 10. Because dependent claims are "construed to incorporate by reference all the limitations of the claim to which [they refer]," 35 U.S.C. § 112, ¶ 4, Appellant respectfully submits that there is also no suggestion or motivation for the addition of Tiedmann to the hypothetical combination of Ton in view of Perkins I, Troxel and Jue that provides a *prima facie* case of obviousness.

Tiedmann relates to a cellular telephone "system for increasing the reliability of the cellular telephone system in environments having substantial *multipath propagation* or under conditions wherein a large number of mobile telephone units simultaneously attempt to access a base station." (Tiedmann 1:18-24). Specifically, Tiedmann relates to "[reducing] interference between multiple spread-spectrum transmitters operating simultaneously . . . ." (Tiedmann 3:12-15). Tiedmann appears disassociated from the aspects of Appellant's invention because of its focus on resolving channel interference.

Appellant respectfully submits that there is no suggest or motivation for the proposed hypothetical combination of these disparate references that would achieve Appellant's claimed invention of its dependent claims 4 and 12.

**5. The rejection of Claims 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, further in view of Troxel, and further in view of Perkins, "Mobile Networking through Mobile IP (Perkins II)"**

Claims 19 and 20 depend indirectly from Independent Claim 15. As submitted above, there is no suggestion or motivation for the hypothetical combination of Ton in view of Perkins I to achieve Appellant's claimed invention as recited in its Claim 15. Because dependent claims are "construed to incorporate by reference all the limitations of the claim to which [they refer]," 35 U.S.C. § 112, ¶ 4, Appellant respectfully submits that there is also no suggestion or

motivation for the addition of Perkins II and Troxel to the hypothetical combination of Ton in view of Perkins I that provides a *prima facie* case of obviousness.

Perkins II recites that “Mobile IP requires the existence of a network node known as the home agent. Whenever the mobile node is not attached to its home network (and is therefore attached to what is termed a foreign network), the home agent gets all the packets destined for the mobile node and arranges to deliver them to the mobile node’s current point of attachment.” (Perkins, “Mobile Networking through Mobile IP,” at p. 59). That is, Perkins does not address home agent inoperability, but to home agent operation.

Appellant respectfully submits that there is no suggest or motivation for the proposed hypothetical combination of these references that would achieve Appellant’s claimed invention of its dependent claims 19 and 20.

**6. The rejection of Claims 5, 6, 13, and 14 under 35 U.S.C. § 103(a) as being unpatentable over Ton in view of Perkins I, and further in view of Troxel, further in view of Perkins II, and even further in view of U.S. Patent No. 5,590,092 to Fehnel (“Fehnel”)**

Claims 5 and 6 depend indirectly from Independent Claim 1. Claims 13 and 14 depend from Independent Claim 10. As submitted above, there is no suggestion or motivation for the hypothetical combination of Ton in view of Perkins I to achieve Appellant’s claimed invention as recited in its Claim 1, nor is there a suggestion or motivation for the hypothetical combination of Ton in view of Perkins I and Troxel to achieve Appellant’s claimed invention as recited in its Claim 10.. Because dependent claims are “construed to incorporate by reference all the limitations of the claim to which [they refer],” 35 U.S.C. § 112, ¶ 4, Appellant respectfully submits that there is also no suggestion or motivation for the addition of Fehnel, Perkins II and

Troxel to the hypothetical combination of Ton in view of Perkins I that provides a *prima facie* case of obviousness.

Fehnel recites “an object . . . to provide methods and systems for generating a current *time of day* in a cellular radiotelephone. (Fehnel 2:20-22).

Appellant respectfully submits that there is no suggest or motivation for the proposed hypothetical combination of these references that would achieve Appellant’s claimed invention of its dependent claims 19 and 20.

**7. In the rejection of Claims 1-23, Appellant respectfully submits that motivation for the hypothetical combinations of the cited references improperly stems from Appellant’s claimed invention**

Because of the disparate nature of the cited references, Appellant respectfully submits that the Final Office Action uses Appellant’s claimed elements as the suggestion and/or motivation for the hypothetical combination of Ton, Perkins I, and Troxel, and also with respect to the additional references cited in response to the limitations of Appellant’s dependent claims.

The Federal Circuit has noted that “an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely *by finding prior art corollaries* for the claimed elements would permit an examiner to use the *claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention*. Such an approach would be ‘an illogical and inappropriate process by which to determine patentability.’” *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (quoting *Sensonic, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570 (Fed. Cir. 1996)) (emphasis added).

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *Id.*

That is, Appellant respectfully submits that there is no suggestion or motivation to modify the post-registration redundancy device of Ton in view of the protocol enhancements of Perkins, “IP Mobility Support,” to achieve Appellant’s invention of its Independent Claims 1 and 15, and further in view of the foreign agent ranking device of Troxel with regard to Independent Claim 10, to achieve Appellant’s claimed invention. Further, it is respectfully submitted that in several instances, much less teach or suggest all of Appellant’s claim limitations. Appellant respectfully submits that its disclosure was improperly used as a blue print to bring disassociated references to form an improper basis for rejection of Appellant’s claimed invention.

Rejections to Appellant’s dependent claims had been based upon further citation of Jue, Tiedmann, Fehnel, and/or Perkins II to the base rejection under Ton in view of Perkins I to Independent Claims 1 and 15, and further in view of Troxel to the rejection of Independent Claim 10.

Claims 4-6 depend directly or indirectly from Independent Claim 1. Claims 12-14 depend directly or indirectly from Independent Claim 10. Claims 18-10 depend directly or indirectly from Independent Claim 15. In that Ton in view of Perkins, “IP Mobility Support,” does not provide a prima facie case of obviousness with respect to Independent Claims 1 and 15,

the addition of supplemental references, as respectfully submitted, do not cure the deficiency of the lack of a *prima facie* case of obviousness as to the claims that depend from these independent claims. Accordingly, Appellant respectfully requests that the rejection to these claims be withdrawn.

Claim 12-14 depends directly or indirectly from Independent Claim 10. In that Ton, in view of Perkins, “IP Mobility Support,” in further view of Troxel does not provide a *prima facie* case of obviousness with respect to Independent Claims 10, the addition of supplemental references, as respectfully submitted, do not cure the deficiency of the lack of *prima facie* case of obviousness as to the claims that dependent from Independent Claim 10. Accordingly, Appellant respectfully requests that the rejection to these claims be withdrawn.

Accordingly, Appellant respectfully submits that there is no suggestion or motivation in the post-registration redundancy device of Ton in view of the protocol enhancements of Perkins, “IP Mobility Support,” or the various references further cited, to achieve Appellant’s claimed invention of dependent Claims 4-6, which depend directly or indirectly from Independent Claim 1, dependent Claims 12-14, which depend directly or indirectly from Claim 10, and dependent Claims 18-20, which depend directly or indirectly from Independent Claim 15.



**G. Conclusions**

For the above-provided reasons, the Appellant respectfully requests that all of the rejections of the Final Office Action be overturned and that the claims in the present application be allowed to issue.

Respectfully submitted,

**Date: July 6, 2007**

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**H. Claims Appendix**

1 1. (Previously presented) A method for registering a subscriber unit with a home agent in a  
2 cellular system, the method comprising:

3 storing addresses for a plurality of home agents in the subscriber unit, wherein the  
4 plurality of home agents includes a primary home agent and a plurality of secondary home  
5 agents;

6 attempting registration with the primary home agent;

7 failing to achieve registration with the primary home agent;

8 the subscriber unit selecting a secondary home agent from the plurality of secondary home  
9 agents in an attempt to balance load among the plurality of secondary home agents; and

10 attempting registration with the secondary home agent.

1 2. (Previously Presented) The method of claim 1, further comprises:

2 the subscriber unit rank ordering the plurality of secondary home agents into at least a  
3 first secondary home agent and a second secondary home agent.

1 3. (Original) The method of claim 2, further comprising:

2 attempting registration with the first secondary home agent;

3 failing to achieve registration with the first secondary home agent; and

4 attempting registration with the second secondary home agent.

1 4. (Previously Presented) The method of claim 2, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit generating a random number; and

5 the subscriber unit using the random number to rank order the plurality of secondary  
6 home agents.

1 5. (Previously Presented) The method of claim 2, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit determining a current date; and

5 the subscriber unit using the current date to rank order the plurality of secondary home  
6 agents.

1 6. (Previously Presented) The method of claim 2, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit determining a current time; and

5 the subscriber unit using the current time to rank order the plurality of secondary home  
6 agents.

1 7. (Original) The method of claim 1, wherein the plurality of addresses for the home agents  
2 stored in the subscriber unit is programmed by a service provider prior to delivering the  
3 subscriber unit to its subscriber.

1     8.       (Original) The method of claim 1, wherein the plurality of addresses for the home agents  
2     stored in the subscriber unit is programmed by the service provider using over the air access.

1     9.       (Original) The method of claim 1, wherein at least some of the plurality of addresses for  
2     the home agents stored in the subscriber unit is reprogrammed by the service provider using over  
3     the air access.

1 10. (Previously Presented) A method for registering a subscriber unit with a home agent in a  
2 cellular system, the method comprising:

3 storing addresses for a plurality of home agents in the subscriber unit, wherein the  
4 plurality of home agents includes a primary home agent and a plurality of secondary home  
5 agents;

6 attempting registration with the primary home agent;

7 failing to achieve registration with the primary home agent;

8 the subscriber unit rank ordering the plurality of secondary home agents into at least a  
9 first secondary home agent and a second secondary home agent in an attempt to balance load  
10 among the plurality of secondary home agents; and

11 attempting registration with the first secondary home agent.

1 11. (Original) The method of claim 10, further comprising:

2 failing to achieve registration with the first secondary home agent; and

3 attempting registration with the second secondary home agent

1 12. (Previously Presented) The method of claim 10, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit generating a random number; and

5 the subscriber unit using the random number to rank order the plurality of secondary  
6 home agents.

1 13. (Previously Presented) The method of claim 10, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit determining a current date; and

5 the subscriber unit using the current date to rank order the plurality of secondary home  
6 agents.

1 14. (Previously Presented) The method of claim 10, wherein the subscriber unit rank ordering  
2 the plurality of secondary home agents into at least a first secondary home agent and a second  
3 secondary home agent comprises:

4 the subscriber unit determining a current time; and

5 the subscriber unit using the current time to rank order the plurality of secondary home  
6 agents.

1           15.   (Previously presented) A subscriber unit that operates within a cellular system, the  
2 subscriber unit comprising:

3           an antenna;

4           a radio frequency unit coupled to the antenna; and

5           at least one digital processor coupled to the radio frequency unit that executes software  
6 instructions causing the subscriber unit to:

7           store addresses for a plurality of home agents in the subscriber unit, wherein the plurality  
8 of home agents includes a primary home agent and a plurality of secondary home agents;

9           attempt registration with the primary home agent;

10          failing to achieve registration with the primary home agent;

11          select a secondary home agent from the plurality of secondary home agents in an attempt to  
12 balance load among the plurality of secondary home agents; and

13          attempt registration with the secondary home agent.

1           16.   (Previously Presented) The subscriber unit of claim 15, wherein execution of the  
2 software instructions further causes the subscriber unit to:

3           rank order the plurality of secondary home agents into at least a first secondary home  
4 agent and a second secondary home agent.

1           17.   (Original) The subscriber unit of claim 16, wherein execution of the software  
2 instructions further causes the subscriber unit to:

3           attempt registration with the first secondary home agent;

4           fail to achieve registration with the first secondary home agent; and

5           attempt registration with the second secondary home agent.

1           18.     (Original) The subscriber unit of claim 17, wherein in rank ordering the plurality  
2 of secondary home agents into at least a first secondary home agent and a second secondary  
3 home agent, execution of the software instructions further causes the subscriber unit to:  
4           generate a random number; and  
5           use the random number to rank order the plurality of secondary home agents.

1           19.     (Original) The subscriber unit of claim 17, wherein in rank ordering the plurality  
2 of secondary home agents into at least a first secondary home agent and a second secondary  
3 home agent, execution of the software instructions further causes the subscriber unit to:  
4           determine a current date; and  
5           use the current date to rank order the plurality of secondary home agents.

1           20.     (Original) The subscriber unit of claim 17, wherein in rank ordering the plurality  
2 of secondary home agents into at least a first secondary home agent and a second secondary  
3 home agent, execution of the software instructions further causes the subscriber unit to:  
4           determine a current time; and  
5           use the current time to rank order the plurality of secondary home agents.

1           21.     (Original) The subscriber unit of claim 15, wherein the plurality of addresses for  
2 the home agents stored in the subscriber unit is programmed by a service provider prior to  
3 delivering the subscriber unit to its subscriber.

1           22.     (Original) The subscriber unit of claim 15, wherein the plurality of addresses for  
2 the home agents stored in the subscriber unit is programmed by the service provider using over  
3 the air access.



1   23.     (Original) The subscriber unit of claim 15, wherein at least some of the plurality of  
2   addresses for the home agents stored in the subscriber unit is reprogrammed by the service  
3   provider using over the air access.

**I. Evidence Appendix**

No Evidence Submitted.

**J. Related Proceedings Appendix**

No Related Proceedings